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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,412	09/20/2000	Tetsuji Shono	P19597	7432
7055	7590	11/19/2003	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			SELBY, GEVELL V	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	

2615

DATE MAILED: 11/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/665,412

Applicant(s)

SHONO, TETSUJI

Examiner

Gevell Selby

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Cosnard et al., US 5,424,835.

In regard to claim 1, Cosnard et al., US 5,424,835, discloses a digital camera (see figure 6, element 230) comprising:

“a photographic lens (see figure 6, element 231) that is provided on a camera body of said digital camera so that an optical axis of said photographic lens is stationary with respect to said camera body (see figure 6, element 234 and column 5, lines 46-53);

an image pick-up element (see figure 6, element 232) on which an image of an object formed by said photographic lens is impinged (see column 5, line 47-51); and

a tilting/swinging mechanism (see figure 6, element 235) provided in said camera body, wherein said tilting/swinging mechanism can cause at least one of tilting and swinging movement of said image pick-up element relative to a plane orthogonal to said optical axis (figure 6, 236 and column 5, lines 54-56).”

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In regard to claim 2, Cosnard et al., US 5,424,835, discloses the digital camera according to claim 1, wherein

“said tilting/ swinging mechanism (see figure 6, element 235) is designed so that said image pick-up element (see figure 6, element 232) can be operated to rotate about a point of intersection (see figure 6, 235) between said optical axis see figure 6, element Δ) and a sensitive surface of said image pick-up element (See column 5, elements 54-56).”

In regard to claim 7, Cosnard et al., US 5,424,835, discloses a digital camera (see figure 6, element 230) having a photographic lens (see figure 6, element 231) and an image pick-up element (see figure 6, 232), said photographic lens being provided on a camera body of said digital camera so that an optical axis of said photographic lens is stationary with respect to said camera body (see column 5, 47-53), an image of an object to be photographed being impinged on said image pick-up element through said photographic lens (see figure 7, elements 231 and 232 and column 5, lines 57-59), said digital camera comprising:

a tilting/ swinging mechanism (see figure 6, element 235) provided in said camera body, wherein said tilting/swinging mechanism can cause at least one of tilting and swinging movement (see figure 6, elements 236 and Δ) of a sensitive surface of said image pick-up element relative to a plane orthogonal to said optical axis (see column 5, lines 54-56) ,

wherein said tilting/ swinging mechanism comprises:

a movable member to which said image pick-up element is fixed (see figure 6, element 232); and

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a stationary member (see figure 6, element 235) to which said movable member is connected so that said movable member can move relative to said stationary member so as to at least one of tilt and swing said image pick-up element relative to said plane (see figure 6, element 236 and column 5, lines 54-56).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965).**

In regard to claim 1, Ishida et al., US 6,639,625, discloses a digital camera (see figure 2) comprising:

a photographic lens (see figure 2, element 11) that is provided on a camera body of said digital camera;

an image pick-up element (see figure 2, element 12) on which an image of an object formed by said photographic lens is impinged (see column 6, lines 6-20);
and

a tilting/swinging mechanism (see figure 2, element 61) provided in said camera body, wherein said tilting/swinging mechanism can cause at least one of

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tilting and swinging movement of said image pick-up element relative to a plane orthogonal to said optical axis (figure 6, element Z and column 6, lines 33-41).

Ishida et al., US 6,639,625, lacks a photographic lens where the optical axis is stationary with respect to said camera body. The lens is an integral part of the exterior surface of the image sensing device and therefore tilts up and down when the sensing unit is tilted. Making parts of a device separate is equivalent to making them integral. See *In re Lawson*, 144 USPQ 347 (CCPA 1965), which states, "that the use of a one piece construction instead of the structure disclosed in [the prior art, which was a multiple piece construction] would be a matter of obvious engineering choice."

It would have been obvious to a person skilled in the art, at the time of invention, to modify Ishida et al., US 6,639,625, in view of *In re Lawson*, 144 USPQ 347 (CCPA 1965) to separate the lens of the image sensing device; therefore, the optical axis of the lens will remain stationary with respect to the camera body.

Ishida et al., US 6,639,625, further discloses the tilting/swinging mechanism comprising:

"a mount (see figure 2, element 15) to which said image pick-up element (see figure 2, element 12) is fixed, said mount comprising a convex surface; and

a base fixed to said camera body (see figure 2, element 22), said base comprising a concave surface having a radius of curvature corresponding to a radius of curvature of said convex surface (see column 6, lines 20-22),

wherein said mount is mounted on said base with said convex surface being slidable on said concave surface (figure 2, elements 12 and 26 and column 6, lines 25-32).”

It the exterior of the image sensing device slides over the edges of the housing and the ball bearings connected to the housing.

In regard to claim 4, Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) discloses the digital camera according to claim 3, wherein “said tilting/swinging mechanism further comprises an operation member (see figure 2, element 61) which is fixed to said mount so that said mount can be moved relative to said base by operating said operation member (see column 6, lines 36-41).”

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) in further view of In re Japikse, 86 USPQ 70 (CCPA 1950).

In regard to claim 5, Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) as explained above discloses the digital camera according to claim 1, wherein said tilting/swinging mechanism comprises:

a mount (see figure 2, element 15) to which said image pick-up element (see figure 2 element 12) is fixed, said mount comprising:

a convex spherical surface (see figure 2, element 15); and

a base fixed to said camera body (see figure 2, elements 21 and 22) , said base comprising:

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a concave spherical surface having a radius of curvature corresponding to a radius of curvature of said convex spherical surface (see column 6, lines 20-22), wherein a sliding movement of said convex spherical surface on said concave spherical surface causes said image pick-up element to rotate about said a point on the optical axis (see figure 2, element 0).

Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) lacks:

a convex spherical surface having a center coincident with a point of intersection between said optical axis and a sensitive surface of said image pick-up element.

The image sensing element will have to be repositioned when the lens is separated from the exterior surface of the image sensing device. Shifting the lens and the image sensing element forward so that the image sensing element is positioned at O and the elements are still equally spaced apart is an obvious design decision. In re Japikse, δ 6 USPQ 70 (CCPA 1950) teaches "that there would be no invention in shifting the [component] disclosed by [the prior art] to a different position since the operation of the device would not thereby be modified.

It would have been obvious to a person skilled in the art, at the time of invention, to modify Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) in further view of In re Japikse, δ 6 USPQ 70 (CCPA 1950) to have the image sensing element at position 0 allowing for the convex spherical surface having a center coincident with a point of intersection between said optical axis and a sensitive surface of said image pick-up element.

In regard to claim 6, Ishida et al., US 6,639,625, in view of In re Lawson, 144 USPQ 347 (CCPA 1965) in further view of In re Japikse, δ 6 USPQ 70 (CCPA 1950) discloses the digital camera according to claim 5, further comprising an operation member (see figure 2, element 61) which is fixed to said mount so that said mount can be

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moved relative to said base by operating said operation member (see column 6, lines 31-41).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shono et al., US 6,318,912, discloses at tilting device for a digital camera.

Marcus et al., US 6,381,024 discloses a camera with a movable image sensing element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 703-305-8623. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on 703-308-6613. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

gvs


VU LE
PRIMARY EXAMINER